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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,783	12/19/2001	Hugh L. Brunk	P0513	9584
23735	7590	03/22/2005	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			PATEL, SHEFALI D	
		ART UNIT	PAPER NUMBER	
		2621		
DATE MAILED: 03/22/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/027,783	BRUNK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shefali D Patel	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 17 September 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-57 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) \_\_\_\_\_ is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) 1-57 are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

**DETAILED ACTION**

*Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1, 10, 11, 25, 32, and 36 are drawn to method of generating a content signature, classified in class 382, subclass 100.
  - II. Claim 8 is drawn to a method of resolving a stream of content signature, classified in class 714, subclass 795.
  - III. Claim 9 is drawn to a method of generating a content signature from compressed data, classified in class 382, subclass 232.
  - IV. Claim 12 is drawn to a method of generating a content signature by applying trellis coded quantization, classified in class 714, subclass 792.
  - V. Claims 14, 17, 44, and 47 are drawn to method of deriving a content signature, classified in class 713, subclass 176.
  - VI. Claims 41, 48, 51, and 54 are drawn to data management method, classified in class 380, subclass 239.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as "method of resolving a stream of content signature comprising applying Viterbi decoding according to the stream of content signatures, etc." which does not require method of generating a content signature for a signal comprising dividing the signal into at least one set as claimed in invention I. See MPEP § 806.05(d).

3. Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as “method of generating a content signature from compressed data comprising extracting n of the most significant of the m bits” which does not require method of generating a content signature for a signal comprising dividing the signal into at least one set as claimed in invention I. See MPEP § 806.05(d).

4. Inventions I and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as “method of generating a content signature for a signal applying trellis coded quantization to a data set to find a minimum relationship between the data set” which does not require method of generating a content signature for a signal comprising dividing the signal into at least one set as claimed in invention I. See MPEP § 806.05(d).

5. Inventions I and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as “method of deriving a content signature for a content item comprising a digital watermark embedded therein comprising at least an orientation component” which does not require method of generating a content signature for a signal comprising dividing the signal into at least one set as claimed in invention I. See MPEP § 806.05(d).

6. Inventions I and VI are related as **combination and subcombination**. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the

particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the details of generating a content signatures for a signal as recited in claim 1 are not recited in claim 41, for example, one of the broadest combination claims. The subcombination has separate utility such as dividing the signal, transforming the set, determining features, and grouping the features to generate a content signature for a signal rather than providing the content signature to a data base constructed as content addressable memory.

7. Inventions II and III are related as **combination and subcombination**. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the details of method of generating a content signature from compressed data as recited in claim 9 are not recited in claim 8, for example, one of the broadest combination claims. The subcombination has separate utility such as compressed data having m bits, extracting n of the most significant of the m bits and storing the n bits as the content signature rather than resolving a stream of content signatures corresponding to sets of a content item by applying Viterbi decoding.

8. Inventions II and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as “method of generating a content signature for a signal applying trellis coded quantization to a data set to find a minimum relationship between the data

set" which does not require method of resolving a stream of content signature comprising applying Viterbi decoding according to the stream of content signatures. See MPEP § 806.05(d).

9. Inventions II and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as "method of deriving a content signature for a content item comprising a digital watermark embedded therein comprising at least an orientation component" which does not require method of resolving a stream of content signature comprising applying Viterbi decoding according to the stream of content signatures. See MPEP § 806.05(d).

10. Inventions II and VI are related as **combination and subcombination**. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the details of resolving a stream of content signatures corresponding to sets of a content item by applying Viterbi decoding is not recited in claim 41, for example, one of the broadest combination claims. The subcombination has separate utility such as resolving a stream of content signatures corresponding to sets of a content item by applying Viterbi decoding according to the stream of content signatures rather than providing the content signature to a database constructed as content addressable memory.

11. Inventions III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as "method of generating a content signature for

a signal applying trellis coded quantization to a data set to find a minimum relationship between the data set" which does not require generating a content signature from compressed data comprising extracting n of the most significant of the m bits. See MPEP § 806.05(d).

12. Inventions III and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as "method of deriving a content signature for a content item comprising a digital watermark embedded therein comprising at least an orientation component" which does not require generating a content signature from compressed data comprising extracting n of the most significant of the m bits. See MPEP § 806.05(d).

13. Inventions III and VI are related as **combination and subcombination**. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the details of method of generating a content signature from compressed data as recited in claim 9 are not recited in claim 41, for example, one of the broadest combination claims. The subcombination has separate utility such as compressed data having m bits, extracting n of the most significant of the m bits and storing the n bits as the content signature rather than providing the content signature to a database constructed as content addressable memory.

14. Inventions IV and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable.

In the instant case, invention V has separate utility such as “method of deriving a content signature for a content item comprising a digital watermark embedded therein comprising at least an orientation component” which does not require generating a content signature for a signal applying trellis coded quantization to a data set to find a minimum relationship between the data set. See MPEP § 806.05(d).

15. Inventions IV and VI are related as **combination and subcombination**. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the details of method of generating a content signature for a signal as recited in claim 12 are not recited in claim 41, for example, one of the broadest combination claims. The subcombination has separate utility such as applying trellis coded quantization to a data set to find a minimum relationship between the data set rather than providing the content signature to a database constructed as content addressable memory.

16. Inventions V and VI are related as **combination and subcombination**. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the details of method of deriving a content signature for a content item comprising a digital watermark embedded therein are not recited in claim 41, for example, one of the broadest combination claims. The subcombination has separate utility such as decoding the embedded digital watermark from the content item to retrieve the

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orientation, reorienting the content item based on the orientation component rather than providing the content signature to a database constructed as content addressable memory.

17. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

18. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

19. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

*Conclusion*

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D Patel whose telephone number is 703-306-4182. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shefali D Patel  
Examiner  
Art Unit 2621

March 10, 2005



BRIAN WERNER  
PRIMARY EXAMINER